Extension Service Review

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NATIONAL 4-H CLUB CAMPERS VISITING MOUNT VERNON

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Extension Service Review

VOL. 2 WASHINGTON, D. C., JUNE, 1931 NO. 6

The Fifth National 4-H Club Camp

THE FIFTH national 4-H club camp and conference will be held on the grounds of the United States Department of Agriculture in Washington, D. C., June 17 to 23, inclusive. Club-member delegates are expected from 40 States.

The club delegates will meet each day to discuss problems of the farm boy and girl, particularly those pertaining to vocation, family relations, recreation, personal development, and service. They will assemble for their conference committee work in the same five groups. Each group will select its own chairman, secretary, and recorder. The group officers will also meet daily to summarize the discussions and prepare progress reports to be presented to the main club conference on the day following. All committee discussions will be led by club member delegates appointed each day by the committee chairmen.

The State leaders will meet at the same hour in the conference rooms of the department and will continue their discussions again at afternoon sessions Under the leadership of O. E. Baker, in charge of studies in land resources and utilization, Bureau of Agricultural Economics, the leaders will study the trends of agriculture and its effect upon young people. Nat. T. Frame, director of Cooperative Extension Work in West Virginia, will conduct a round-table conference of the leaders on 4-H club problems.

Experiments Observed

While the leaders are engaged in their afternoon conferences the 4-H delegates will observe the outstanding experiments being carried on by the department in or near Washington, and will visit places of historical and educational interest about the District of Columbia.

One afternoon will be spent at the department's livestock and experimental farm of about 1,500 acres, 13 miles northeast of Washington, D. C., near Beltsville, Md. Members of the staffs of the Bureau of Animal Industry and the Bureau of Dairy Industry will accompany the delegates about the farm and explain the work in progress relating to beef and dairy cattle, horses, sheep, goats, hogs, poultry, and phases of dairy manufacturing.

On another afternoon the delegates will drive to the department's plant industry farm near Arlington, Va., about 1 mile south of the Capital. Here, under the leadership of members of the Bureau of Plant Industry staff, they will visit experiments relating to cereals, orchards, forage and truck crops, potatoes, small fruits, and ornamentals.

Twelve miles down the Potomac is the home of our first farmer President, Mount Vernon, and the journey to this typical early Virginia plantation will be full of interest both educationally and historically.

Tours on the club delegates' program include also the arts and industries, natural history, and aircraft buildings of the Smithsonian Institution, the Bureau of Engraving and Printing, the Washington Monument, Lincoln Memorial, Pan American Building, Corcoran Gallery of Art, and the Library of Congress.

Assembly Speakers

Assemblies will start the days with stirring 4-H club songs and inspirational addresses. Speakers on the 1931 program include Mrs. James Y. Rippin; Charles F. Jenkins; Chairman J. C. Stone of the Federal Farm Board; Secretary of Agriculture Arthur M. Hyde; C. W. Warburton, Director of Extension Work; and C. B. Smith, chief, Office of Cooperative Extension Work. Mrs. Rippin is national director of the Girl Scout organization, member of the National Council of Social Agencies, the National Conference on Social Work, and the National Conference on Outdoor Activities. Doctor Jenkins is president of the Jenkins Laboratories and research vice president of the Jenkins Television Corporation, is the inventor of the projection machine for motion-picture theaters and television and radiophotography devices and author of a number of books on vision by radio. The assemblies will be held in the auditorium of the United States National Museum.

Camp Organization

Every hour of the delegates' seven days has been carefully allotted by committees of the Extension Service staff. Transportation schedules have been made and checked, meals arranged, and quarters assigned in the tent city that is erected on the department grounds each year for the camp. This will leave both delegates and their accompanying State extension agents free to give undivided attention to the week's program.

The camp director, will be assisted by a staff including a general secretary, a financial secretary, supervisor of physical equipment, medical service, and committee members responsible for the club members' conferences, the morning sessions, tours, and the evening programs. An information service will handle news and photographs for the newspapers in the States interested in the delegates and for representatives of agricultural journals visiting the camp. The 4-H delegates will write their own daily camp newspaper, the 4-H Forage. Three of the department's noon-hour radio periods will be made avail-

4-H Clubs Enroll 845,000 Members

The enrollment of 845,000 boys and girls in the 4-H clubs for 1931 is reported by State extension divisions. This is a gain over the 1930 enrollment of more than 22,000 club members and was made in the face of an economic situation and a widespread drought that made heavy emergency demands upon the time and effort of county extension agents.

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able to delegates in which to tell of their 4-H club experiences, on June 19, 22, and 23.

Delegates coming by train will be met at Union Station and directed to the camp. Those coming by automobile will drive to the department grounds. Each delegation will report immediately on arrival at the headquarters tent to register, receive instructious on camp arrangemeuts and programs, and to learn their tent assignments. Club girls and chaperons will have their tents on the inner half of the camp quadrangle. Tents for the boys and meu will occupy the sides of the camp nearer the thoroughfare. Two States will be represented in each tent and work on the problem of getting acquainted with strangers from 40 States will be thus well started.

Reveille will rouse the camp each morning at six o'clock. Twenty-five minutes later the campers will stand at attention while the flag is raised. From 6.30 to 7.30 policing of quarters will keep everyone busy. Then the divisions will form for the walk to breakfast. Assembly will follow, then the club members' conference, the State leaders' conference, noonday meal, educational tours, supper, recreation, camp-fire or special evening feature, and taps.

Facilities will be available for club delegates and leaders to attend whatever services they may wish Sunday morning. The entire camp will go to Arlington Memorial Cemetery Sunday afternoon for a special service in the amphitheater and at the Tomb of the Unknown Soldier. Club-member delegates will have charge of the program for the banquet which will be held at the United States Chamber of Commerce Friday evening. To close the other days' programs, the club members will gather around a campfire built in the center of the camp for an hour of miugled fun and inspiration before the signal comes for "Lights out."

THE AMERICAN Home Economics Association will hold its twenty-fourth annual meeting in Detroit, Mich., June 22–27, with "The Rôle of the Home in Individual and Family Development" as the central theme of the conference.

Just preceding this meeting, the Home Economics Extension Conference will be held at the St. Clair Inn, St. Clair, Mich., June 20–22, for home demonstration agents, extension specialists, and State leaders. All home economics extension workers are cordially invited to both of these meetings.

Importance of Direct Contact

EARLY extension reports emphasized such information as the number of miles traveled, number of meetings held and attendance, the number of farms or home visits made, the number of result demonstrations established, aud the number of boys and girls enrolled in clubs and similar activities. It was held that such activities were essential to the influencing of farmers and farm women to accept the better farm and home practices taught.

That this theory was correct has been demonstrated by the data from extension field studies which have been conducted in recent years, reports M. C. Wilson, of the Office of Cooperative Extension Work. Studies of 10,421 farms in representative sections of 16 States bring out the importance of an extension worker employing teachiug means and agencies which, over a period of years, will bring the extension worker into direct contact with the people he or she is endeavoring to serve.

Where members of the farm family had been in group contact with extension workers through meetings and result demonstrations, or in personal contact through farm and home visits, office calls, and the like, 91 per cent of the families involved reported changes made due to extension information as compared to but 41 per cent of the families in the no contact group. More than four times as many instances of the adoption of better practices were reported by the families in the contact group than by the no contact families.

It was also found that direct contact methods have been of greater importance in the spread of home economics extension information than in the case of agricultural information.

Iu the contact group, on 87 per cent of the farms, improved practices were adopted in agriculture as compared to 38 per cent in the uo-contact group; while 39 per cent of the homes in the contact group reported the adoption of improved home economics practices as compared to only 8 per cent iu the no-contact group.

There is naturally a close relationship between the means and agencies employed in extension teaching and the extent to which extension workers coue in contact with their clientele. Data from the field studies mentioned above involving more than 30,000 instances of practices adopted, indicate that for every 100 practices adopted 58 per cent were credited to contact methods such as meetings, demonstrations, farm visits, and office calls; 21 per cent to non-contact methods such as bulletins, news articles, and circular letters; and 21 per cent to the indirect influence of all means and agencies.

The means and agencies which make possible contact between extension workers and the rural people serve both to disseminate information regarding improved practices and to build confidence in the extension workers. It is most logical that there should be a close relationship between confidence established, the extent to which rural people are informed regarding improved practices, and the success attending the teaching efforts of the extension worker, says Mr. Wilson.

Home Demonstration Work in Hawaii

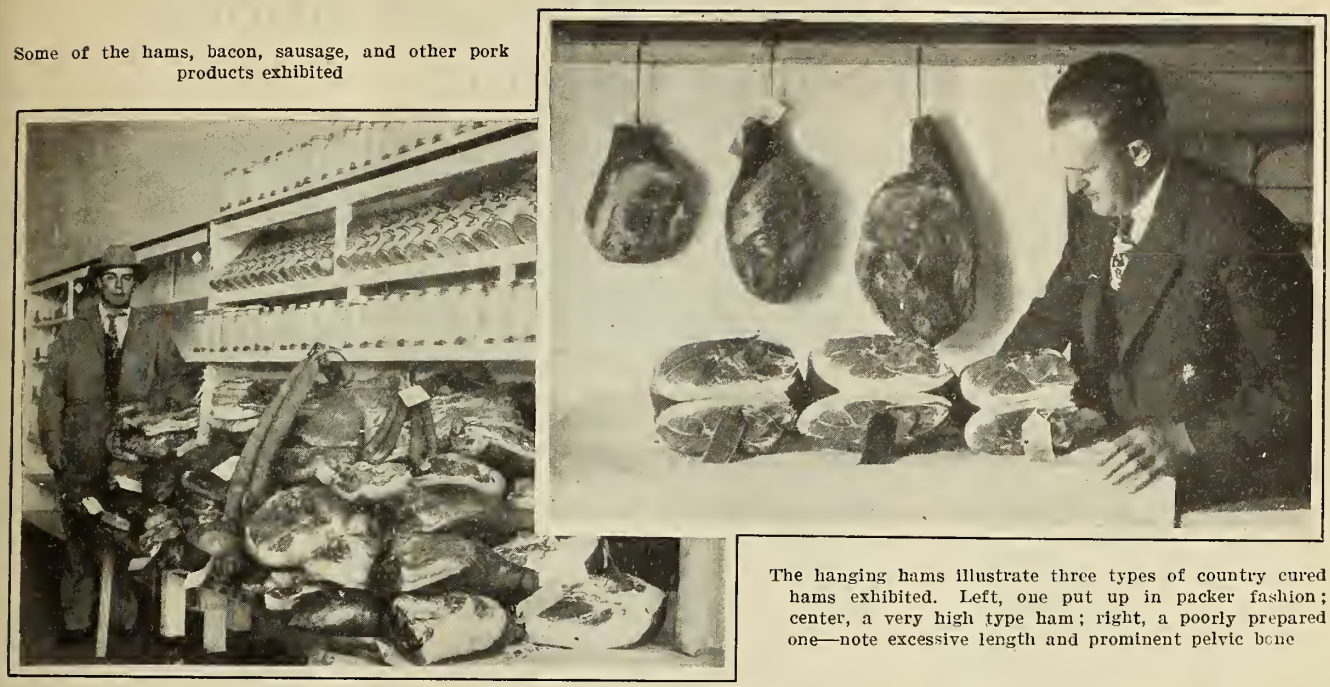
HOME demonstration work in Hawaii is carried on with attendant difficulties which the extension worker in the States may not fully appreciate. According to Mrs. Gladys M. Wood, administrative assistant in Hawaii, at times the agent finds it necessary to have copies of recipes translated and mimeographed before a satisfactory distribution can be made.

Even ordinary ovens are scarce in Hawaiian country homes, but through the cooperation of the Kauai high school shop class 5-gallon kerosene cans have been neatly reconstructed into ovens and are being furnished the native womeu for 75 cents each. Nearly 100 women have ordered these ovens.

Some practical and attractive uses of iuexpensive materials are being taught on the island. For instance, last September Mabel Green, Honolulu County home demonstration agent, secured 180 sugar sacks and 36 flour sacks for her sewing clubs. The following articles were made from the sacks: 20 curtains, 12 pillow covers, 2 laundry bags, 3 bedspreads, 3 dresser scarfs, 6 luncheon sets, 6 tablecloths, and 1 house dress.

Texas Holds a Ham and Bacon Show

Some of the hams, bacon, sausage, and other pork products exhibited



The hanging hams illustrate three types of country cured hams exhibited. Left, one put up in packer fashion; center, a very high type ham; right, a poorly prepared one—note excessive length and prominent pelvic bone

THE Texas Ham and Bacon Show at Lubbock, March 27 and 28, demonstrated two things from an extension viewpoint: The effectiveness of a single theme in capturing popular imagination and the value of such a show in fostering the live-at-home ideal.

Visitors from both town and country learned that both cotton and livestock were still on the plains and, after being served tasty meat dishes and hot coffee, realized that country people can vie with experts in putting up meat, reports W. H. Darrow, Texas extension editor.

In addition to livestock, the 400 exhibitors, living in 16 counties, showed over 700 entries of country-cured hams, bacon, picnic shoulders, Boston butts, canned scrapple, pork roast, sausage, lard, liver paste, and soap.

Objective of the Work

During the fall and winter months, pork killing, curing, and canning demonstrations had been given by Roy W. Snyder, meat specialist, E. M. Regenbrecht, swine specialist, and Zetha McInnis, home industries specialist, with the cooperation of Sterling Evans and Myrtle Murray, district agents. These demonstrations were presented on a live-at-home basis. Meat curing and canning during the first three months of 1931 exceeded all previous records. Families that had not put up meat for years once again did some canning and the meat products of hundreds of other families were improved by the new methods demonstrated.

At the show, farmers penciled old envelopes "to reckon up" the price of a hog sold in finished form and to determine the practicability of selling home cured and canned pork products on a local scale as a means of increasing the revenue from hogs and of adding to the per acre value of grain sorghum crops. Most of them decided that the processing approximately doubled the live-weight value of the animal, but, although a few farmers and their wives seemed ready to venture into such a home industry, the majority were impressed with the living-at-home phase.

Regional pride was roused by the white paper or cellophane wrapping given to meat and set off with circular stickers in yellow and black containing a map of Texas and branded "Texas Country Cured." These adornments were furnished by the commercial concerns and the Lubbock Chamber of Commerce which financed the show.

The cured meats were judged by K. F. Warner of the Bureau of Animal Industry, and the canned meat products and soap were judged by Mrs. Ola Powell Malcolm, of the Office of Cooperative Extension Work, both from Washington, D. C. The judging brought out that in addition to curing, the grades for meat were influenced by the type of swine and the finishing.

Virginia Camp for Farmers and Farm Women

IN THE September, 1930, issue of the REVIEW an editorial on camps raised some questions on the apparent lack of extension camps for farmers, although many such camps are conducted for women and boys and girls. In answer to this editorial, Sylvia Slocum, district home-demonstration agent in Virginia, and Mabel Massey, home-demonstration agent, James City County, Va., have written to the REVIEW reporting at least one extension supervised camp in which the men have a share.

They report that of the 275 people who attended the third annual Virginia adult camp at the Jamestown 4-H camp grounds, August 11–15, 1930, about 50 were men. These men had a special program of their own, in addition to attending the women's discussions in which they were interested. Bathing, horseshoe pitching, fishing, and the historic sights of Williamsburg, Yorktown, and Jamestown Island provided the recreational side of camp life for these men.

Growers' Marketing Organizations in South Carolina

W. W. LONG
Director, South Carolina Extension Service

IT IS generally admitted that the Extension Service of South Carolina played an important part in organizing in 1922 the tobacco growers of this State; this organization then becoming a part of the Tri-State Tobacco Association, the other two members being the North Carolina and the Virginia associations. For numerous reasons, useless to mention, this association was disappointing and finally went into the hands of a receiver. Naturally the tobacco growers lost confidence in the efficacy of a cooperative marketing association.

Organization Effected

Upon the passage of the Federal marketing act creating the Federal Farm Board, the extension service realized that if the tobacco growers were to receive any benefit from this legislation it was necessary for them to organize and thus place themselves in a position to cooperate with the Fedcral Farm Board. To this end, a general meeting was held at Florence, S. C., which was attended by 1,300 farmers and business men, and addressed by James C. Stone and Carl Williams, members of the Federal Farm Board. The meeting was thrown open for general discussion, after which a vote was taken by ballot to determine whether it was thought wise to attempt to organize the growers. Of the large number voting only four voted against organizing.

Immediately an active campaign of an educational character was begun, and no high-powered salesmanship was undertaken. Facts were placed before the farmer, and he was left to determine whether he would join. Five thousand farmers signed the contracts and one-fourth of the tonnage of the crop, based on the previous year's production, was pledged. A permanent organization was perfected. The directors elected by the members were entirely representative and were men of outstanding intelligence. The association has been handled in a most businesslike manner, resulting in general satisfaction and the outlook for a large increase in membership for the next crop is most encouraging.

I mentioned that the Extension Service of South Carolina played a part in organizing this association, I freely admit that this would have been impossible except for the fact that the growers realized that the Federal Government, through the Federal Farm Board, would make every effort not only to cooperate with the organization but would have parental supervision. In discussing the matter with the farmer this thought was emphasized—this is the first attempt of the Federal Government to establish a definite agricultural policy with all of its prestige back of it and a tremendous appropriation provided. Now, Mr. Farmer, if you do not propose to cooperate with your Government in trying to make this policy (established for your interest) a success, what do you expect your Government to do and what do you propose to do?

Assocation Reorganized

The cotton association was organized in 1922, the extension service being active in bringing about its organization. Unfortunately, it too was disappointing. Its membership and number of bales handled declined each year. Following the passage of the marketing act the board of trustees of Clemson Agricultural College, appreciating the great importance of this legislation to the agriculture of the State, had several conferences with directors of the association, resulting in a proposition to make a survey of the affairs of the association to be undertaken by the Extension Service of the United States Department of Agriculture and Clemson Agricultural College, the Federal Farm Board, and representatives of the cotton association.

A survey of an exhaustive character was made, and a reorganization of the association, largely based upon this survey, was accomplished. As a result of this reorganization a larger number of bales of cotton will be handled this season than at any time in the history of the organization. The increased interest in the cotton association was the result of the marketing act, the farmers believing that the Federal Farm Board would see that efficiency was enforced.

The officials of the cooperative organizations naturally have the success of this marketing act largely in their hands. If they can not demonstrate that this legislation will redound to the credit of the farmer in dollars and cents, then cooperative marketing will be questionable. The Extension Service of South Carolina is making every effort and working in close cooperation with the Federal Farm Board and the different commodity associations.

Minnesota Poultry Schools for Women

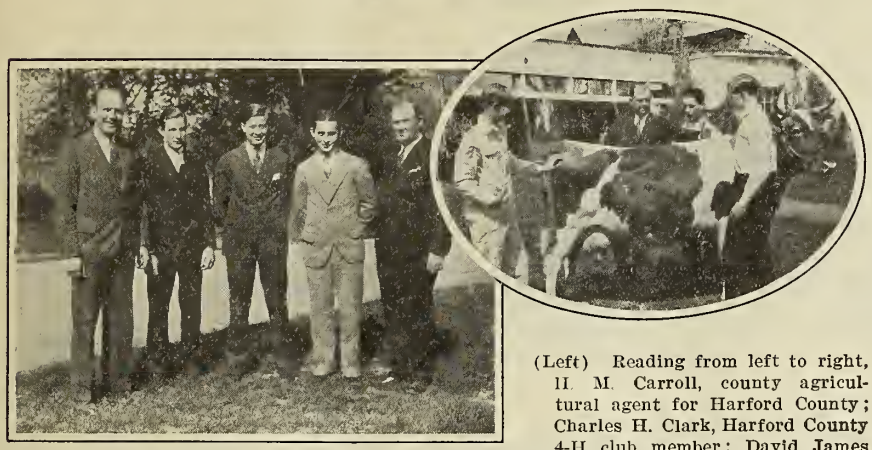
POULTRY and egg marketing schools for women have proved popular in Minnesota, especially in counties adjacent to the larger cities and towns where private outlets for the products are available, reports Cora E. Cooke, women's poultry specialist in that State. A series of schools held during the fall months was conducted by Miss Cooke. The local organization work was done by the county home demonstration agents, and the schools in 11 counties had an attendance of 590 members.

Eggs were candled and graded to show variations in quality, and emphasis was placed on the need for prompt marketing to prevent deterioration. Poultry dressing demonstrations were of special interest; these were illustrated by exhibits of dressed poultry and graded and packed eggs.

At each meeting the groups discussed the prevailing poultry and egg prices and the present status of the poultry business as a farm enterprise. It was noted that egg production was relatively low and that young stock put on the market was of unusually poor quality, largely due to low prices.

The discussion centered around the need for selling poultry and eggs on a graded basis as a means of inducing greater care on the part of producers. It was brought out that such care would encourage greater egg consumption and thus maintain a better price level.

Maryland Sends Judging Team to England



(Left) Reading from left to right, H. M. Carroll, county agricultural agent for Harford County; Charles H. Clark, Harford County 4-H club member; David James Johnston, Baltimore County 4-H club member; William Chilcoat, Baltimore County 4-H club member; and H. C. Barker, Maryland extension dairy specialist. (Right) Members of team receiving instruction on judging from Mr. Barker

BY MAKING the highest judging score at the 1930 National Dairy Exposition, the Maryland 4-H club dairy judging team won the right to represent the United States in the annual international dairy judging contest which will be held in England, during July. Maryland teams have represented the United States in this contest in three other years, winning the international contest in 1922 and 1923 but losing in 1926 to the English team.

The young farmers' clubs in England were started in 1921, the first one, a calf club, being sponsored by the United Dairies (Ltd.). The London newspaper, The Daily Mail, was one of the first promoters of clubs for boys and girls and was largely responsible for their establishment in England. At first a public-spirited individual supplied the money necessary for organizing a club which was returned later by the members. Since the importance of club work was realized, the National Farmers' Union, large industrial concerns, groups of farmers, or interested persons have been willing to lend the small amount needed to start a club, provided it was paid back at the end of the first year, when the club was supposed to become self-supporting. In 1924, the Ministry of Agriculture took over the supervision of club work and outlined a general policy for the management of clubs which could be changed to suit local conditions, but had no expense in this connection beyond the salary and expenses of the organizer appointed by the Government to assist with the development of the work.

At the close of 1928, a review of the state of club work showed that though progress had been made and the movement had become a national one, there were certain social features which made it desirable to transfer the supervision from the ministry to a voluntary body. The rural community councils, first organized in 1921, had already added the promotion of young farmers' clubs to their other services for the rural people in a number of counties, and their headquarters organization seemed best fitted for the development of the movement. Accordingly, at the ministry's request, the National Council of Social Service, the common council of the community councils, now established in 17 counties, agreed to undertake the supervision of club work in the future. The ministry arranged for a grant for five years, the amount contributed each year to become less and less, until the end of this period, when it was hoped the club movement would be self supporting. The Carnegie trustees, who had become interested in the work, also made a small donation. These two contributions together with subscription and affiliation fees have by no means been adequate for the work.

Early in 1929 the National Association of Young Farmers' Clubs was formed under the auspices of the national council, and since then a new stage of development has begun for the clubs with the aid of this body, the Ministry of Agriculture, and county educational and agricultural authorities. Though hardly a year has passed since the national association was formed, the clubs are on a more solid foundation and give promise of steady growth. The association has its headquarters at Bedford Square, London, and since March, 1929, has been publishing a paper, "The Young Farmers," which is proving a means of uniting the clubs and popularizing their work. The association has adopted a club badge, which is of oxidized silver, circular in shape, and bears the words, "Young Farmers' Club." On the badge are shown a young person plowing, the sun coming up in the distance, and five spikes of wheat.

Schools for County Fair Judges

Two schools for training county fair judges were held last year in Nebraska because the extension and college officials believed that there was a great need for standardization of the judging of products and livestock at county fairs and because they believed that extension specialists should not devote their time to judging work at county fairs, according to Elton Lux, Nebraska extension editor.

The first school was held for the judges of home-economics exhibits and the second school for the judges of agricultural exhibits. At these schools individuals other than extension workers received the benefit of the experience of the extension and college workers in the principles of judging at fairs and in dealing with county fair officials and exhibitors, as well as gaining practical experience and information on judging itself.

The Nebraska extension service furnished county fair officials with a list of the men and women who had attended these schools and who had been approved by the college faculty as competent judges. The county fair officials then made all their arrangements with the judges direct, although the extension service offered to help in any emergency cases. Mr. Lux reports that the counties of the State seem to be very well satisfied with these arrangements.

The American Dairy Science Association will hold its meeting this year at Davis, Calif., July 14–15. There will be a preconvention tour in California and a postconvention tour in Oregon and Washington.

Measuring Progress in Extension Work

J. C. TAYLOR
Director, Montana Extension Service

THE USUAL method of reporting extension activities is to indicate by narrative and statistical summary what has happened during a specified period of time. This system gives the statistical record from year to year but does not in any manner indicate what has happened in the way of changes or progress in establishing any phase of agricultural production within a designated area, except for the limited period covered by the report. In reporting the results of extension work, the county is the unit we ordinarily use, but seldom do we show what has actually happened to the agriculture of a county as a result of extension efforts over a period of years.

Records of Changes

That such measurement is possible has been demonstrated to some extent by a system that has been gradually evolved in keeping records of changes effected through extension methods in Montana. This has been done by starting with a known base of any particular phase of work and then keeping accurate records of progress made over a period of years. Such a system once established is easy to continue and has the decided advantage of indicating at all times the degree to which the spread of influence has occurred. Hence, such a system of measuring extension accomplishments seems to have a distinct advantage in that the exact status of any phase of project work can be determined upon the basis of the contribution made in agricultural development of any section we may wish to measure.

Pure Seed Produced

To illustrate, since 1919 an extensive pure-seed producing program has been under way in Montana, and plans have been gradually developed whereby a county with such a program now produces sufficient seed stocks of any grain variety to supply its needs. An examination of the records kept in a county over a period of years will illustrate how we may obtain an accurate check in the spread of influence of a particular project. Let us examine the records of a county where extension work was established in 1922. This will serve to illustrate how we may determine what improvement has been accomplished over a period of years where the cumulative effect is measured.

In this particular county grain growers were taking a heavy dockage in grain sales when the work started, because of the badly mixed varieties of grain produced, together with high smut content. For 6 years, during the time extension work has been in operation in this county, accurate records have been kept of the increased use of pure seed, which started with 1 registered grower with 10 acres of Marquis wheat in 1922.

Spread of Marquis wheat traced to registered seed

	1922	1923	1924	1925	1926	1927
Number of growers	1	10	39	110	215	305
Number of acres	10	200	1,170	5,500	20,000	31,000
Total bushels	150	3,000	23,400	72,000	180,000	360,000
Increased yield per acre over seed previously used (bushels)	3	3	5	4	2	3

In another county, where extension work has been under way less than three years, results secured in extending the use of registered seed are very similar. In 1928, 2 carloads of pure Marquis seed were shipped in and distributed to 100 farmers. In 1929, 150 farmers used seed from this source, seeding over 16,000 acres. Yields from this acreage averaged over 2 bushels more per acre than grain produced from ordinary seed. Many illustrations might be cited of similar records with grain production; but reports of other activities may be of more interest, for this system can be used in practically every phase of extension work.

The measurement of increased interest and cooperation on the part of local communities in supporting a county fair is well illustrated in the following report:

Community fairs

Community	Number of exhibitors					
	1925	1926	1927	1928	1929	1930
1	134	274	158	149	204	368
2	13	61	73	97	145	174
3	65	88	82	94	106	114
Total	304	776	955	1,015	1,526	1,955

The above table indicates the total exhibits from 15 communities over a 6-year period, but does not give the detailed record for each, because of lack of space. The growth of the county fair in this county has been in proportion to the community cooperation, and this past year 91 per cent of the farmers in the county displayed exhibits.

In another county an examination of the records of a livestock shipping association indicating the number of animals handled over a period of years also shows a close correlation to the production program under way. These records are based upon actual shipments through the association over a 7-year period, or from the time the association commenced to function.

Livestock shipped by years

	1924	1925	1926	1927	1928	1929	1930
Cattle	374	1,082	2,066	1,594	965	629	872
Hogs	858	1,432	1,604	1,969	2,396	2,821	3,504

A comparison of the records with the projects in livestock production programs in the county shows a very interesting correlation with development of the work. For instance, during the last four years, 1927 to 1930, inclusive, the emphasis in the extension program was placed upon hog production both with adults and juniors, which is well illustrated in the table by a sharp decrease in cattle shipped from 1927 on.

Dairy Herd Improvement

Likewise the records of a dairy herd improvement association tell an interesting story over a period of years and incidentally indicate what progress is being made in herd improvement.

Dairy herd-improvement association records

	Annual production per cow			
	1926	1927	1928	1929
	Pounds	*Pounds*	*Pounds*	*Pounds*
Milk	6,305	7,202	7,867	8,002
Butterfat	246.3	294.5	309.1	317.7

There has been an average of 264 cows in this association, which indicates an increased production of 1,697 pounds of milk and 71.4 pounds of butterfat per cow during the 4-year period.

Alfalfa Seed Production

In still another county the records of a seed marketing association again indicate what has been happening in the way of establishing this important cash crop.

Registered alfalfa seed sealed

	1927	1928	1929
Number of pounds	330,000	568,000	664,000
Average	950	2,633	2,780
Number of growers	43	55	44

The spread of influence of potato certification may be measured in the same way in any given area, as illustrated by the following county record.

Potato seed certification

	1925	1926	1927	1928	1929	1930
Acres planted with certified seed	3	3	51	165	150	108
Increased yield over common seed stock (in sacks)	75	100	1,275	2,300	2,250	3,740
Estimated increase due to certified seed	112½	200	1,275	1,725	5,625	3,740

From such a record it is easy to determine the increased returns to potato growers over this period of time as a result of using certified seed. In this particular instance the increased amount was $12,158 in favor of certified seed.

The following table gives a summary of rodent control work for a period of five years. The figures on amounts of poison used are based on actual sales records. Other figures are determined from data on file in the extension office.

Results of rodent control project

	1927	1928	1929	1930	Total
Farmers cooperating	125	200	250	285	860
Acres covered with poison bait	10,000	14,000	18,000	20,000	62,000
Pounds cyanogas used	3,165	7,000	10,000	5,000	25,165
Pounds poisoned oats used	5,645	3,000	5,000	11,067	24,712
Total cost of poison	$1,479	$1,555	$2,650	$2,383	$8,068
Estimated saving to crops protected	28,457	25,000	32,000	30,000	115,457

Such records are of permanent value to the State Extension Service but still more important to an extension agent. He can use such records in many ways. For instance, such material makes an excellent basis for news stories and in many instances can be used for feature press articles in both State and local papers. Still more important, perhaps, is the use of such records on selling extension results to boards of commissioners and business men. They can readily understand such summaries where less tangible records, such as we sometimes use, mean little or nothing. Of greatest importance is the value of such records in measuring the actual progress made in the development of any phase of agriculture in a county.

Ohio Grows Greenhouse Vegetables

OHIO growers own approximately 600 acres of greenhouse structures which have been erected at a cost of from $40,000 to $50,000 per acre, according to A. W. Marion, extension greenhouse specialist in Ohio. In order to survive competition from shipped-in produce, the Ohio greenhouse growers, with their tremendous overhead, must grow a large crop of high-quality produce and market it to the best possible advantage.

Of the five important factors for optimum plant growth—namely, soil fertility, water, heat, air, and light—the hothouse grower can control all but light, which can be controlled only partially. Since this is true, one of the big jobs of the extension worker is to teach the growers how to handle the other four factors to offset the effect of either intense or insufficient light. The extension worker also calls the grower's attention to better varieties; tells him how he can control insects and diseases; and assists in the selection of fertilizers which leave little or no residues. The extension worker also helps with the marketing of the crop by suggesting better grading and better packages and assisting in the organizing of cooperative associations. In fact, he assists with any problem regarding the forcing of vegetables.

The most outstanding results of the greenhouse extension projects carried on in Ohio last year were in the feeding of nitrogen to tomatoes and cucumbers. In the case of tomatoes, the nitrogen was applied each week or 10 days after the third cluster had set and sulphate of ammonia was used at the rate of 300 pounds per acre per application and watered in immediately. As much as 3,000 pounds or more of nitrogen per acre was used during the season.

On cucumbers the applications were the same except that they were not started until after the first good picking. In one case urea, at the rate of 125 pounds per application, was used in the place of sulphate of ammonia.

These feeding demonstrations were held in 11 counties and some of the results were as follows: A Ross County grower increased the yield of greenhouse tomatoes 3,680 pounds per acre by feeding sulphate of ammonia and following the extension service recommendations. In Hamilton County one farmer had an increase of 6 tons of greenhouse tomatoes due to systematic feeding of sulphate of ammonia. A grower in Lucas County increased his returns $500 from one application of 300 pounds of sulphate of ammonia on 1 acre of greenhouse tomatoes. Another Hamilton County man increased his yield of greenhouse cucumbers 1,000 dozen per acre by feeding sulphate of ammonia. The most outstanding increase on cucumbers was in Ashtabula County where by using urea as a nitrogen carrier the yield was increased at the rate of 4,050 dozen per acre more than that of the unfed check.

An outstanding example of what can be done by better management of greenhouse crops comes from a range of greenhouses in Lucas County. One of the owners told Mr. Marion that, since they had installed tile sterilization, fed their cucumber and tomato crops with nitrogen, and carefully followed the other improved practices recommended, they had increased the sales from their 13 acres of greenhouses $60,000 in one year.

Extension Service Review

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JUNE, 1931

Whose Job?

Whose job is it to take extension's message to the farmer and his family? It is, in the final analysis, the job of the county extension agent. It is through the man or woman placed as an extension agent in the county that extension must render its service to that county. To the extent to which this man or woman has strength, intelligence, and ability to understand and sympathize with farm problems, to that extent will the extension service be successful in making farming as a business in that county more profitable and its farm life more attractive and satisfying. The better trained this man or woman is and the better paid, to that degree will extension work in the county be strong. No matter how well planned the program for extension development in the State may be, no matter how carefully the subject matter or the teaching of this subject matter is organized by State extension specialists, if the extension agent in the county is not capable of giving life and form to the proposed program, extension work will go haltingly in that county.

For the work to succeed, the agent must believe in the program. He must see how the subject matter fits into the local situation. He must be as capable of using the teaching methods proposed as a master workman is capable of handling his tools. He must know intimately the views and way of living of his people. He must be respected and accepted by them. He must sympathize with their hopes and ambitions. Then, and then only, can he hope to accomplish permanent improvement. Then, and then only, will extension make a real contribution to the farming and farm life of that county.

What are the real problems of the extension organization to-day? First, to provide proper and adequate training for the men and women who seek to qualify themselves for extension work. Second, to employ men and women for county work well trained, with a sound background of practical experience, with a sympathetic attitude toward farm problems, and at a salary that will command a high caliber of ability and influence. Third, to develop for the use of these extension agents an ample fund of scientific information that will meet progressively the changing situations and requirements of a county's agriculture. Here in the county the extension organization needs the best training, ability, and appreciation of farm problems that its financial resources can command. The success of extension work in any county must continue to depend in a large measure on the caliber of the county extension agent and the standing and authority he has with his people.

Develop Research

In his discussion in this issue of the REVIEW of extension relationships in the agricultural college, Director M. S. McDowell, of Pennsylvania, places particular emphasis on the opportunities for mutual helpfulness open to research and extension agencies. The extension worker, he points out, can aid materially in strengthening the research program of the institution. He can develop among farmers, business men, and others with whom he works an intelligent appreciation of the dependence of successful extension work and agricultural progress on the scientific solution of the problems of production and marketing. He can show that the extension service continues to be of practical aid only when the results of investigations into farm problems produce facts on which improved practices can be based. He can explain that along with the maintenance of extension work and the flow of helpful information to the farm, equal provision must be made for the conduct of research and development of facts that can be extended.

Then, too, through close contact with the research staff, extension workers can give the investigator the first-hand information regarding field problems and situations that should result in the direction of research along lines calculated to be of practical service in enabling the extension worker to assist farmers in meeting the problems immediately before them.

Through association with the research staff, the extension worker gains a better understanding of some of the difficulties and problems in conducting research and of the course such work must take. With proper coordination, the research and extension agencies of an institution become a powerful machine for the solution of farm problems and the advancement of agricultural progress. Without such coordination, much effort will be wasted, progress will be delayed, and the institution eventually will fail in its function as an agency for giving constructive aid to the agriculture of the State.

Measuring Progress

What has happened to the agriculture of a county as a result of extension effort over a period of years is seldom given in the annual report of the county extension agent. Director J. C. Taylor of Montana, makes this preliminary assertion in discussing the measurement of progress in extension work in this issue of the REVIEW. He then places before us a number of examples of results obtained in different counties in that State.

Director Taylor gives a variety of measurements of progress to choose from. All have to do with some kind of increase or growth due to extension effort. Here they are: The production of an improved variety of grain, the number of exhibits at the county fair, the shipments of a livestock marketing association, the production per cow in a dairy herd-improvement association, the output of a seed marketing association, and the number of acres on which rodent control was practiced.

With these results before us, what are we to conclude? Where increased production of a commodity is reported can we assume that more buyers were attracted and that prices were improved? Can we assume, also, that these results meant an increase in the net income of the farmer? Are we reasonably sure that these efforts have improved living conditions and increased the satisfaction to be found in living on the farms in these counties? Do we know from the results reported what has happened to the agriculture of the county as a result of extension effort? What are our answers to these questions? How shall extension progress be measured?

Extension Relationships in the Agricultural College

M. S. McDOWELL
Director, Pennsylvania Extension Service

THAT industry and invention have made tremendous progress in recent years is a fact patent to all.

The last two or three decades have brought progress which was not dreamed of at the beginning of the present century. The automobile, the radio, and many other developments have profoundly affected our lives. This rapid progress has come as a result of painstaking research and the application of the principles discovered. Without continuous and persistent search for new facts and principles progress must slacken.

Agriculture, too, has profited from the results of a search for knowledge which have been applied to the farm, the farm home, and the rural community; although the application here is often more difficult. A growing fund of basic facts is just as essential to the progress of agriculture and the farm home as it is to industry and to other lines of endeavor. Without research and the application of its results, agriculture will lag. A retarded agriculture affects the whole foundation of our national life. This applies to production, to distribution, and to marketing, as well as to those factors which relate to the health, the social, and the community life of our rural people.

Functions of College

The discovery and application of new facts and principles, the teaching of all available information to resident students, and the carrying of helpful information to those whose operations and lives are directly affected, but who can not come to the institution—these are the functions of the agricultural college. This has sometimes been expressed by saying that the work of the agricultural college is built upon a tripod; teaching, research, and extension representing the legs of the tripod.

The agricultural college was founded originally for the teaching of students. It soon became evident, however, that satisfactory teaching was not possible without a background of definite and authentic information. The experiment stations were established to meet this need for accurate knowledge.

After a few decades of agricultural research a fund of information was accumulated which had value not only for the teaching of students who came to the college but also for the individual farmer. It was only through the application of these principles upon the individual farm that agriculture as a business could be made more efficient and more profitable.

Fundamentally, then, the extension service is the channel through which information developed by the United States Department of Agriculture, the State experiment stations, and other agencies is distributed to farmers and home makers throughout the country.

Importance of Research

Just at this time there is a general recognition of the importance of and insistent demand for research, resident teaching, and extension in the field of agricultural economics. Each of these three factors is of vital importance and each has a definite relation to the others. Students can not be taught, nor can agriculture as a bnsiness be made more profitable, without the results of research. The agricultural college can not fulfill its obligations unless available information is carried to the farmers. Neither research nor extension can be maintained unless students who are capable of assuming leadership are being taught.

The extension specialists, the county agents, the home economics workers, need to be regarded as constituting an integral part of the activities of the agricultural college just as much as do the research workers. The leaders and workers in each field should feel at liberty to plan and develop such activities as will meet the needs of the situation. There should be the closest cooperation but not domination of one by the other.

Responsibility of Agent

Responsibility develops incentive and usually brings superior results. Teaching, research, and extension need the most careful thought and planning. The extension worker, whether specialist, county agent, or home economics worker, should be given the same opportunity for advanced study as is granted the research worker and teacher. Nor will the best interest of one branch of the work be served if the workers in that field are subordinate and, therefore, on the lookout for advancement to higher ranks and salaries in one of the other two branches of work in the agricultural college. This does not mean that there should not be interchange of activities. Good results may follow interchange but this does not affect responsibility within each field. Only with a proper understanding and the elimination of jealousy, if it exists, can the best results for all concerned be obtained.

While research must constitute the basis upon which extension activity rests, the research worker may be greatly benefited through contact with extension in the field and thus secure more direct and accurate knowledge of conditions. Meeting with farmers and obtaining their reactions is also helpful to the research worker.

With his need for continuous contact with research, the extension worker can at the same time be very helpful in bringing to the experiment station problems which are pressing for solution. He can throw light upon the relation of these problems to farm operations as a whole.

Support for Research

The extension worker may well devote some energy to making clear to his clientele the difference between extension and research. It is true that, since extension reaches people in a direct way, there may sometimes be observed a tendency to regard the extension work as the only phase of work to which active support is given. Extension workers should help in correcting this erroneous view and in securing the necessary support for other phases of the work of the agricultural college.

On the other hand, the research worker often needs to recognize that only through the maintenance of a strong and effective extension service may support be secured for research.

Because of small units working under a wide range of conditions, inability to employ scientifically trained personnel, supply laboratories and equipment, and other factors, it is impossible for the farmer to conduct research work. In the interest of the people as a whole, however, it is vital that such work be done. The only way it can be accomplished is with public funds and under public supervision.

Since agricultural research can be conducted only at public expense, the obligation of carrying information to rural

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A scene from the 1-act play, The Florist, presented by a 4-H club in Marathon County

4-H Club Plays in Wisconsin

THE 4-H clubs in Wisconsin staged their third annual home-talent tournament during the winter, reports Verne Varney, assistant State club leader. According to the plan adopted in the beginning any 4-H club, or two clubs if the membership of each club is less than 10, may put on a 1-act play, and any county with at least three play groups may enter the State tournament.

In 1926 junior groups were preparing special feature programs, particularly novel in nature, which were competitive and held in connection with the adult drama tournaments. The 4-H club leaders became interested in the 1-act play for their clubs for many reasons: (1) It was a wonderful activity for the clubs during the winter months, bridging the period from achievement to spring enrollment in our State, (2) it afforded a new experience not otherwise found in 4-H club work, (3) it provided exceptional socializing opportunities, and (4) it afforded an opportunity to raise money for worthy club objectives.

The extension specialist in rural sociology and the rural sociology department of the State college of agriculture assisted in the county-wide drama institutes. The aim was to have 4-H clubs enjoy this amateur program which was directed by amateur leaders with the suggestions given by professional directors.

The first year 9 counties entered with 45 plays staged; 3 districts were formed, and the winning play of each district competed for State honors in Madison during farm and home week in February. Last year 12 counties participated, and the winning county play groups attended the State club week in Madison in June, engaging in elimination and final contests to determine the ranking plays.

Care has been taken to recommend 1-act plays suitable for rural young folk. These plays were loaned by the extension division for reading purposes. A greater variety of plays distinctly written for the teen age rural people is needed.

Early Ohios and Rhode Island Reds proved to be a good play for a Marinette County group two years ago, and The Florist Shop put on by a club in Marathon County was among those the past year. These two play groups were the State winners. More counties than last year have indicated their active interest in the drama work.

Extension Relationships in the Agricultural College

Continued from page 89

communities is one which the agricultural college can not escape.

The work of the agricultural college may be compared to a water-supply system. A pure dependable water supply or system is essential to the life of any community. The first requisite is a spring or a source which will supply a continuous and ample amount of uncontaminated water. A spring may serve as a satisfactory supply of water to those who may be able to come to it directly. Those who can obtain water in this way are limited in number.

In order to supply this life-giving liquid, mains and water lines must be built so that the supply may be made instantly available over wide areas. Each household must be supplied with a tap through which water may be had at any time.

Research in agriculture and home economics represents the spring or reservoir. Those who may obtain water directly from the spring or source are represented by the resident students. The mains and pipe lines are represented by the extension specialists, and the taps through which the supply reaches large numbers of individuals are represented by the county agents and the home-demonstration agents.

The system is developed at public expense to serve everyone. Certain parts of the water-supply system may be more costly than others but no part can be omitted or sacrificed without seriously affecting the satisfactory working of the system as a whole. Each is serving its purpose best only when all parts are supported and operated in such a way as to serve the best interests of community life.

Outlook Work in Washington

THE following facts reported by W. D. Staats, Washington extension editor, indicate how well the farmers in that State have applied the outlook information which has been given to them by the extension service: (1) Poultry flocks have been culled heavily—in fact the average number of birds in a flock has dropped from 606 in 1928 and 1929 to 579 in 1930 and the average annual egg production per hen has increased from 170 in 1929 to 175 in 1930. (2) The low prices of canner cows and the records of the dairy herd-improvement associations evidence the culling of dairy cows. (3) A 10 per cent increase in the pig crop is expected this year to make up for a State deficiency. (4) As an example of agricultural adjustments in wheat areas, four county cooperative grain organizations have adopted wheat acreage reduction programs. (5) There is a general intensification of the movement to lower the production costs of all agricultural commodities, to eliminate undesirable varieties of apples, and to better adjust and develop side lines.

Preparing the Outlook

The organization of this outlook work for 1931 began with the Western States Outlook Conference at Salt Lake City, Utah, in December, 1930. Before R. M. Turner, economist in farm management, and Robert Cowan, economist in marketing, went to Salt Lake City as representatives of the State of Washington, Director Balmer obtained for presentation to the conference a detailed statement from the department heads in tbe college of agriculture as to the present status and outlook for each field.

After Mr. Turner and Mr. Cowan returned from the conference a round-table meeting of the college of agriculture faculty and the extension specialist was held. Here all the outlook information was analyzed and gradually built up into an outlook applicable to Washington agriculture with a definite outlook for each agricultural commodity of the State and a localized outlook which was a consensus of county, State, sectional, and national agricultural facts and trends.

Tben the various commodity outlooks were presented to the county agents at the annual extension conference, January 5–9, and the agents were asked to check the facts with their local outlook information. After minor changes, modifications, and the final correlation, the information was ready for distribution to the farmers. Methods for the dissemination of this material were presented to the agents by H. B. Carroll, jr., Whatcom County agricultural agent, who has done some outstanding work in this field.

Mediums for Dissemination

In Washington they have found six mediums satisfactory for reaching the farmers. The newspapers and farm journals offer the most economic way of bringing the outlook to the greatest number of farmers and have contained both special and short, authentic, to-the-point articles with discussions on such subjects as prices, economic trends, production costs and adjustments. Monthly pamphlets or mimeographed reports have been issued giving a summary of the short-time outlooks combined with the long-time outlooks. Personal contact at commodity meetings, farm organization meetings, farm visits, and farm management tours has been found to be highly effective, especially if the talks contain specific facts which are well analyzed and locally applied. Charts and graphs, if they are not too complicated, have been helpful to present the facts behind a message. It has been found that if the information is properly presented to the small group, it will be carried to the scattered individuals of the community.

The radio is being used to reach a constantly enlarging field with outlook material and market reports. Lastly, where better facilities are lacking, the circular letter has proved valuable, especially for follow-up material.

Why Use the Outlook?

Notwithstanding the fact that the forces of nature can not be controlled, the outlook service furnishes the farmer with information as to trends whereby greater stability can be attained through placing more emphasis where it is indicated that returns may be favorable and less emphasis where reduced returns are in evidence. The intelligent farmer needs economic facts and an understanding of the major trends of the enterprises in which he is interested, Mr. Staats says. With this understanding and the application of the knowledge, the farmer is prepared to build a stable and balanced farming business which can adjust itself to periods of depression and enhance returns in normal and favorable periods.

NATIONAL 4-H CLUB RADIO PROGRAM

Saturday, July 4

The series of musical compositions entitled "Music from Many Lands" was concluded with the national 4-H radio program broadcast on June 6, which featured music from Pan America. The next series of related compositions selected for the national 4-H music achievement test will begin with the program for December 5, 1931. Announcement of the theme selected for this series will be made later. During the program to be broadcast on Saturday, July 4, the United States Marine Band will play patriotic airs of certain of the countries which provided the music for the series just concluded. The interesting points about these compositions will be discussed by R. A. Turner, field agent of the Office of Cooperative Extension Work.

England	God Save the King.
Italy	Marcia Reale.
France	La Marseillaise.
Germany	Deutschland Über Alles.
Canada	The Maple Leaf Forever.
Hawaii	Aloha Oe.

Medley of patriotic airs of Pan American countries concluding with the Star-Spangled Banner.

Wyoming Women's Pageants

Pageants portraying woman's part in the development of Wyoming were presented at each of the five recreation camps which were held for farm women in that State under the direction of the Extension Service in 1930.

The basic material for these pageants was prepared by Verna Johannesen, Wyoming State home demonstration leader, in cooperation with the English department at the University of Wyoming, but the women at the camps worked out the scenes. Miss Johannesen reports tbat these pageants enabled the women to exercise their originality, provided entertainment, and taught the women some of the history of their State.

Tbe nine episodes begin with Sacajawea, the Indian girl who acted as a guide for Lewis and Clarke. After showing the life of the early settlers and depicting the enfranchisement of the women as voters, jurors, and governors, tbe final episode centers around the home maker of to-day and the part she takes in building the community as an officer of an extension service home makers' club.

Illinois Farmers Value Accounts

MANY Illinois farmers have said that the simple farm-account project of the extension service is worth more than the $15 which they pay as annual dues to the county farm bureau. In fact, the farm accounts of large groups of farmers who use this service indicate that these farmers are led to improve their annual net incomes by about $700 a year. Individual cases have run as high as $2,000 a year (based on an average for a 3-year period before and a 3-year period after reorganizing the business).

The accounting service as conducted in Illinois includes: (1) The furnishing of a simple farm-account book, (2) helping the individual to start his accounts, (3) checking the account for completeness and accuracy at the close of the year, (4) analyzing the account and setting up comparative standards of efficiency in all phases of the business, and (5) visiting the farmer to present him with an annual report of his business, and to discuss with him the most significant features of this report.

Accounts Guide Farmers

Accounting reports have little value if considered only as history, but they have great value when used as a guide to future operations. Fifteen years of experience in this project have shown that most Illinois farmers cooperating in it face the facts frankly and make a genuine effort to increase their efficiency when they learn definitely that they are relatively inefficient in some particular phase of the business by improving or eliminating this phase. This usually has resulted in more improvement in net earnings than increasing efficiency in the most successful parts of the business, which often represent hobbies of the individual.

The advantage of cooperative account keeping is that it enables farmers to set up practical standards of efficiency under the actual conditions found in a given type of farming area. The individual can keep accounts independently and know the results of each year's operations. Knowing only his own business, however, he can not tell whether he is more or less efficient than others in any particular activity. To know that others are more efficient is a great incentive to study and effort on the part of any ambitious farm operator. As it pools the experience of many farmers the accounting service helps also by showing how the more efficient farmers gain their efficiency. This is a fair and profitable exchange, since experience shows that very few farmers are highly efficient in all of their activities. The exchange can be made only through some cooperative centralizing agency such as the organized accounting project.

Need for Cooperative Accounting

The growing complexity of the farm operator's job is increasing the need for cooperative accounting. Such changes as the greater use of mechanical equipment, as well as money and credit, the increasing hazards from insects and diseases, the progressive depletion of virgin soil fertility, and the rapid shifting of market and price conditions, all tend to increase the number of decisions which the farm manager must make. Suitable accounting systems are the best guide in making many of these decisions and the best check as to whether or not they have been made correctly. Recent studies have shown that the difference in earnings between the more efficient and the less efficient farmers is increasing. This also emphasizes the growing need for suitable guiding accounts.

Improving the Quality of Dairy Products

IN 1930 4-H quality work for improving dairy products was carried on in four Oklahoma counties, according to John W. Boehr, Oklahoma extension dairyman.

The beginning of this work can be traced back to a visit to Oklahoma in October, 1929, by J. H. McClain, extension dairyman of the Federal Department of Agriculture. On this visit Mr. McClain supplied the workers in Oklahoma with outlines for the work which were prepared in the Bureau of Dairy Industry.

During the winter meeting of county agents four agents expressed willingness to carry on this work in 1930. Outlines were sent, and letters of instruction and supplementary instructions were prepared and supplied to the agents.

In Okmulgee County two visits were made, and a large 4-H club near Henryetta carried out a good demonstration. The work was explained, demonstrations were given in sedimentation test, methylene blue test, cream grading, and scoring of milk. Over a hundred club members carried on work at home in improvement of dairy sanitation. Seven cooling tanks were constructed and used and a barn was equipped with concrete floor. The community was awakened to the fact that care and cleanliness are most necessary to obtain quality milk. Also, quality milk is used in much greater quantities in the home, as compared with ordinary farm milk. The parents became interested, and during a visit to the 4-H club meeting 17 of the parents came over muddy roads to hear the talks and see the demonstrations.

Girls Give Demonstration

In Stephens County a different process was carried out. Demonstration teams, consisting of club girls, were trained by the home demonstration agent to give a 20-minute team demonstration along this line. The demonstration included the fermentation test (Wisconsin), sedimentation test, and methylene blue test, and illustrated the washing of the cow's udder before milking. The best teams represented the county at the State dairy show and won first place among 14 county teams. Later the dairy quality demonstration was publicly given at three large county fairs where more than a thousand people saw it. At the State dairy association meeting this same team demonstrated and did a fine piece of work. Finally, the team, at the National Dairy Show at St. Louis, performed in such an excellent manner that second national award was given to the demonstration.

Vermont Postgraduate 4-H Clubs

Postgraduate 4-H clubs are now organized in four Vermont counties for club members who have left their regular clubs, according to Martha E. Leighton, Vermont assistant State club leader. The object of these clubs is to continue the interest of the older boys and girls in club work and to teach them to assist with the regular clubs, whose members are younger.

Miss Leighton reports that these clubs aid the county extension forces in such activities as round-ups, fairs, camps, and achievement meetings.

The first of these older members' clubs was organized about a year ago in Chittenden County by Miss Leighton for a group of girls. The postgraduate club in Addison County is also for girls, but the clubs in Bennington and Windham Counties are for young farmers. The members of these clubs carry on more individual and advanced projects, such as the study of production and marketing, college budgeting, and social etiquette.

Missouri Beef Herds Utilize Roughage

APPROXIMATELY 1,400 Missouri farmers, following explicitly the teachings of the agricultural extension service last year, maintained beef-cow herds to utilize cheap farm roughage and fed grain to the suckling calves so that the changing market demand for lighter, earlier finished beef could be met. This movement was a part of the extension work in animal husbandry carried on by the Missouri College of Agriculture during the last seven years to meet the emergency resulting from the World War, according to H. M. Garlock, Missouri animal-husbandry specialist.

Some of the Missouri beef calves

The present extension beef-cattle program in Missouri was undertaken at a time when concentrated effort was necessary to maintain the number of cattle on Missouri farms. It was in 1922 and 1923 when the grasslands that had been plowed in response to the war-time urge to produce grain were becoming eroded and rapidly losing their fertility. Farm prices for cattle were extremely low, and feeders who had been buying cattle to finish had lost heavily. The low-price level and losses had caused many farmers and their financial advisers to conclude that beef cattle, and especially beef cows, were unprofitable, and a heavy liquidation was under way. The emergency consisted of an urgent need for cattle to utilize pasture and rough feeds, and for market animals of lighter weight to meet changing demands.

The first step in this program was to establish the place of the beef-cow herd on Missouri farms. This was accomplished through result demonstrations that provided a record of costs of maintaining the cow herd and the value of the calf crop. These demonstration herds showed that a beef cow could be maintained satisfactorily on pasture, stalk-feeds, fodder, and other low-grade roughages at a cost lower than the market value of her calf.

As soon as farmers began to realize that a beef cow can be kept on the farm for the calf she raises, the second step in the program, grain-feeding suckling calves, was undertaken. Results of cooperative experiments conducted by the Missouri Experiment Station, the United States Department of Agriculture, and the Sni-a-Bar Farms showed that the feeding of grain to suckling calves would make them of satisfactory weights and finish them for immediate slaughter when they were 8 to 10 months old. These grain-fattened calves were approximately 100 pounds heavier and worth $2 to $3 a hundred pounds more than similar ones that received no grain.

Demonstrations on feeding grain to suckling calves were included on farms where records were being obtained on costs of maintaining beef cows. Meetings were held on the farms when the calves were ready for market, and farmers were shown that January, February, and March calves could be furnished for the October, November, and December market with 15 to 20 bushels of grain. The demonstrations also showed that the early grain-fed calves, after paying for their grain, netted their owners from $10 to $20 a head more than similar calves in the community that were not grain fed.

The program has been continued largely on a demonstration basis supplemented with some general meetings. Special emphasis is still being placed on the demonstration meeting when the calves are ready for market, as this offers an opportunity to teach methods of feeding and market requirements of grain-fat calves.

The spread of the adoption of the cow-and-calf system of beef production is shown by the following statistics: After the introduction of the practice in three demonstrations in 1924 it was adopted by 63 farmers in 1925, by 106 in 1926, by 245 in 1927, by 295 in 1928, by 815 in 1929, and by an estimated total of 1,400 in 1930. During these seven years the average cost of maintaining a beef cow for one year on these Missouri farms has varied from $19.10 to $23.78.

The essentials of the Missouri beef-herd program are: Maintain good cows, and cull irregular and poor breeders. Use only good purebred bulls. Use a maximum of roughage and grass in maintaining cows. Use precautionary measures to prevent disease, such as abortion, blackleg, and tuberculosis. In sections of medium corn production feed calves grain while nursing, and market them at 8 to 10 months of age. In heavy corn producing sections fatten calves and market them as fat calves or yearlings.

Making Better Club Officers

In order to make the girls' 4-H club organization in Lake County, Ind., more effective, Elizabeth D. Barnard, county home demonstration agent, makes the presidents and secretaries of the clubs feel the importance of their positions. She sends out instructions which list the things they are to do, tells them how to conduct a business meeting, and shows them how to write up the minutes and keep the records.

Miss Barnard also holds meetings for all the presidents, secretaries, and local leaders of the 4-H clubs in her county. She reports that these county-wide meetings unite the county work as a whole and tend to make the club organization more effective. Out of the first county-wide meeting developed a monthly 4-H club paper for Lake County.

Civic Clubs Aid Negro Pig-Club Work

In 1928 when Alexander Hurse (who is now State agent in negro club work for Georgia) was local county agricultural agent in Pierce and Ware Counties, Ga., he interested the local civic organizations in a 4-H pig club program which has for its goals the improvement of the quality and an increase in the number of hogs raised on the negro farms in those counties.

The Kiwanis Club, the Lions Club, the chamber of commerce, and the Waycross Negro Business League agreed to purchase and sell 47 purebred pigs to the negro 4-H pig club members at cost. Each boy signed an agreement to (1) build a hog house; (2) provide adequate pasture and grow ample feed for his pig; and (3) pay for his pig one year from the date he received it.

Every one of the 47 boys, Mr. Hurse says, met all the conditions of this agreement. Eleven of them raised enough money from the sale of the pigs and the service of their boars to pay for their pigs. Other members have sold 27 pigs at $10 each for breeding purposes to the negro club boys in Dougherty and Laurens Counties.

In 1928 Mr. Hurse found that a great deal of pork was consumed in the counties, and that the possibilities for the cheap production of hogs was not being taken advantage of extensively. Now, he reports that over 7,000 pounds of the boys' pork has been used for home supplies.

A carload of these pigs and 60 pieces of meat were exhibited at the Southeastern Fair and at the Southeast Georgia Fair in 1930, and the boys won $440 in prize money at fairs in 1929 and 1930.

As a result of these 47 demonstrations, many boys have been stimulated to become active members of the pig clubs and adult farmers have been induced to change their methods of swine production. Also, landlords, business men, and bankers are now cooperating with the extension service in this swine improvement program by assisting negro farmers to purchase purebred gilts and boars for breeding purposes.

The specific goal set up for the five years' work is to place at least three purebred boars in every negro community in the counties and to supplant the native razorback with high-grade swine on negro farms. The cooperation of the civic organization, the returns which the active demonstrators are receiving, and the increasing interest on the part of business men and negro farmers make this goal attainable, Hurse says.

Thomas Monroe Campbell

T. M. Campbell Receives Harmon Award

Thomas Monroe Campbell, field agent for the Office of Cooperative Extension Work, was awarded the William E. Harmon award for distinguished service among negroes in the field of farming and rural life during 1930. The award, which consists of a gold medal and an honorarium of $400 in cash, was formally presented to Professor Campbell at a special service in the chapel at Tuskegee Institute, Alabama, on February 8, by Joseph O. Thompson, field representative of the Federal Farm Board, on behalf of W. Burke Harmon, president of the Harmon Foundation.

In writing to Professor Campbell, Mr. Harmon said: "There is no doubt that in helping the farmer to a better understanding of his own problems you are making a great contribution to American civilization."

The Harmon Foundation (Inc.), 140 Nassau Street, New York City, made similar presentations for outstanding work with negroes during 1930 in the fields of music, literature, social science, education, business and industry, and religious service.

Professor Campbell graduated from Tuskegee Institute about 25 years ago and in 1906 was employed by the United States Department of Agriculture as agricultural collaborator to demonstrate extension work to the negro farmers living near Tuskegee Institute. For years he had charge of the famous Jesup wagon exhibition of diversified farming products, from which developed the present movable school. His territory was later extended to cover the State of Alabama, and then to include his present field—the coordination of the work of the negro extension agents in Alabama, Florida, Georgia, Louisiana, Mississippi, Oklahoma, Tennessee, and Texas.

Utah Uses Survey Data

Extension programs in Utah are now being formulated to meet the conditions which were revealed by the home economics surveys and economic conferences held there last spring, reports Wilford D. Porter, Utah extension editor. The two outstanding observations made by the local workers during the surveys and conferences were, first, that $2,500 is a reasonable maximum farm income for providing a wholesome balance of home conveniences, food, clothing, education, and recreation (this figure includes farm privileges); and second, that too many of the Utah farm families have an antipathy toward farming, which seems to be stimulated more by the mother than by the father. Little complaint was made by the farm families whose yearly incomes averaged from $1,500 to $2,500, but those who had less than $1,500 frequently expressed discontent regarding farm life in general.

Content of New Programs

Believing that if agriculture is to endure as a major industry the farm families must believe in their work and be happy and contented with life, the extension home economists and Rena B. Maycock, State home demonstration leader, are assisting the farm families in obtaining their desired standards of living. Since the farm itself is the source of income, farm surveys are taken concurrently with the home surveys in order that both the home maker and the farmer may see the real situation and appreciate each other's position. The home economics extension program is further combating the adverse attitude toward farming by such projects as kitchen-improvement contests, which result in the installation of water systems, electricity, and other conveniences, and the better utilization of the home makers' time so that recreation and intellectual pursuits may be enjoyed by the farm women as well as the city women.

More than 6,000,000 tons of limestone was spread by 60,000 Illinois farmers over 2,000,000 acres of acid land last year, reports C. M. Linsley, extension soils specialist in Illinois. This lime reached about one-tenth of all the cropped land in the State and returned $7.50 in more efficient crop yields for every $1 in lime.

Maine Uses Line Drawings

THE OXFORD COUNTY FARM BUREAU NEWS

Oxford Homes & Families

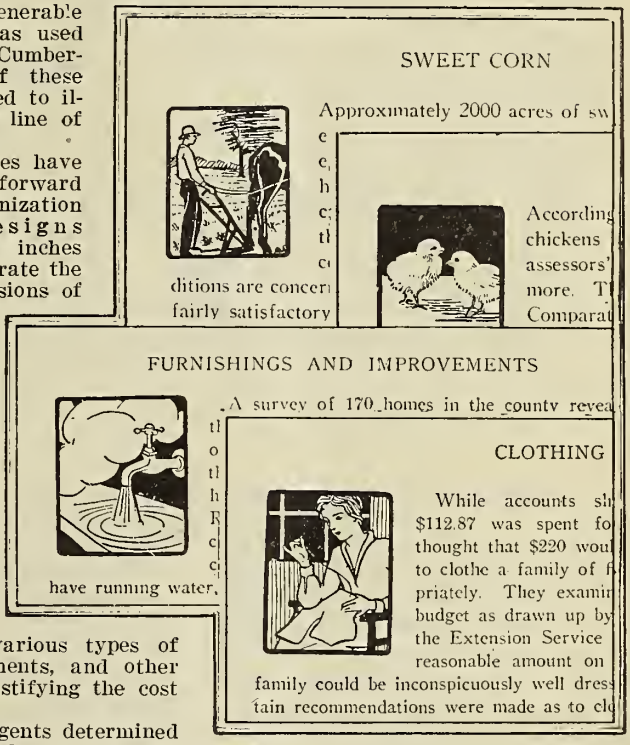
EXTENSION workers in Maine have recently made considerable use of line drawings to illustrate extension bulletins and the home pages in county farm-bureau periodicals, according to Glenn K. Rule, extension editor.

Concerning the use of such drawings, Mr. Rule says:

Our home demonstration agents have one page in the farm bureau news devoted to the interest of the home program in the county. Until about a year ago most of these pages were designated as "The Home Demonstration Department." It occurred to some of the agents that perhaps this type of heading was a bit formal, stiff, and uninteresting, and consequently many of them searched for more distinctive and appealing headings which would be appropriate, but at the same time overcome the objections to "Home Demonstration Department." "About the Home," "Home Echoes," "Knox-Lincoln Homes," "Home Page," "Fireside Notes," "Oxford Homes and Families," were among those that were selected. Club agents have also substituted such headings as "4-H Club Notes" for the more formal "4-H Club Department."

Along with the improved headings for the pages many of the agents are using small, inconspicuous line drawings to add interest and attractiveness. Most of the drawings are suggestive of the home, exterior views, fireplace scenes, or perhaps a glimpse of the flower garden are portrayed. Other drawings are suggestive of significant features in the county. For instance, the venerable Portland Lighthouse was used as being symbolic of Cumberland County. None of these small designs is intended to illustrate any particular line of work being carried on.

This year five counties have published bulletins to forward the farm and home organization project. Thumb-nail designs measuring ⅞ by 1⅛ inches have been used to illustrate the more important subdivisions of the bulletins. Here again these designs are intended to add interest and attractiveness to the publication. If, however, the designs serve in keeping the bulletins on the library tables of farm homes rather than being thrown in the wastebasket, their use will be justified. The thumb-nail sketches are available and appropriate for various types of publications, announcements, and other printed matter, thus justifying the cost of having cuts made.



After the extension agents determined definitely what they wished in the way of illustrations, rough designs were sketched and sent to the Office of Cooperative Extension Work of the United States Department of Agriculture. Here the art unit drew the finished designs in the proper proportions. After the completed drawings were returned to Maine, the various interested counties had line cuts made. The illustrations shown above indicate how some of the designs—both thumb-nail sketches and page headings—were used.

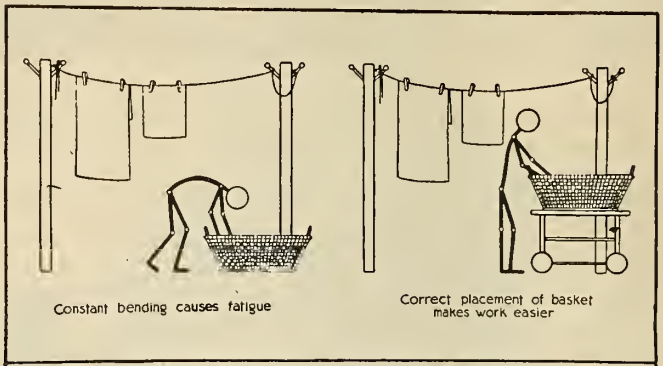
Key Neighbors

BELIEVING that local 4-H club programs will be more useful and effective if they are planned, actively participated in, and led by the reputable men and women in each neighborhood, the county club agents in eastern Rhode Island select the people who are interested in rural social and economic conditions for young people to act as "key neighbors." Carl B. Garey, club agent in Newport County, R. I., reports that these "key neighbors" aid extension work by telling the club agents about local deficiencies which club work can remedy; by naming, supporting, and securing worthy local leaders for the 4-H clubs; by encouraging the cooperation and support of the local people; by securing a higher grade of newspaper publicity for 4-H club work; by advising the club agents of local idiosyncracies; by securing the local grange hall or parish house for group gatherings; and by providing a substantial background and responsibility for club work, especially if frequently visited and properly credited for their work by the club agents.

Posture and Personal Efficiency Featured in New Series of Charts

MANY devices are presented to us these days for checking our personal efficiency. A home-maker's personal efficiency check sheet includes two important items—physical and mental well-being. Physical well-being includes good nutrition for health, fatigue elimination, fresh air, good light, and right posture.

Right posture calls attention to how the home maker does her housework; how she sits or stands when preparing meals, ironing, washing, or sewing. Her posture when climbing steps or when visiting with the neighbors has a bearing upon her personal efficiency.



POSTURE WHEN HANGING LAUNDRY

At the request of Mary A. Rokahr, home management extension specialist of the department, a new series of four charts, featuring good and bad posture, has recently been made available by the Office of Cooperative Extension Work. These charts are reproductions of charts that have been successfully used in educational activities in Germany. They are entitled as follows: "Comfort while laundering through correct posture" (3123–D); "Posture when hanging laundry" (3122–D); "Posture for ironing" (3120–D); and "Posture when preparing vegetables" (3121–D). New charts will be added to the good and bad posture series from time to time. They are 8 by 10 inches in dimension, and rotaprinted copies may be procured without cost by home-economics specialists and home-demonstration workers. They may also be purchased as photographic prints, size 8 by 10 inches, at 9 cents each, or as bromide enlargements 16 by 20 inches, mounted on cloth, at $2 each. Larger sizes also can be obtained at proportionately higher prices, which will be furnished upon request. Purchase orders for these charts should be sent to the Office of Cooperative Extension Work, United States Department of Agriculture, Washington, D. C.

The charts were obtained through the courtesy of the Reichskuratorium fur Wirtschaftlichtkeit and the Technisch-Wissenschaftliche Lehrmittelzentrale, Berlin, Germany, and translated by the Office of Cooperative Extension Work.

New Film Strips Announced

Seventeen new film strips have recently been made available to extension workers by the Office of Cooperative Extension Work. These are available for purchase at the prices listed. Extension workers desiring to purchase film strips should forward their formal order to the Consolidated Film Industries (Inc.), 1776 Broadway, New York City, and at the same time submit a request for authorization to purchase the film strips to the Office of Cooperative Extension Work. *Both the order and the request for authorization are required.* A catalogue of film strips and authorization blanks will be supplied upon request.

Boys' and Girls' Club Work

4-H club songs. Series 233. 51 frames. Illustrates four songs which are often used in boys' and girls' 4-H club work. Price 44¢ each.

Farm Animals

Judging beef cattle. Series 145. 43 frames. This series supplements Farmers' Bulletin 1068, Judging Beef Cattle. Price 35¢ each.

Preparing beef cattle for show or sale: Series 146. 42 frames. This series supplements Farmers' Bulletin 1135, The Beef Calf, its Growth and Development. Price 35¢ each.

The cooperative bull association. Series 163. 36 frames. Illustrates the importance of using only high-class purebred bulls. Price 35¢ each.

Breeds of dairy cattle. Series 255. 47 frames. Illustrates the characteristics of the reorganized breeds and presents outstanding individuals of each. Price 35¢ each.

Judging draft horses. Series 132. 59 frames. Illustrates the principal points to be observed in the judging of draft horses. Price 44¢ each.

Care of horses' feet. Series 162. 41 frames. Supplements Farmers' Bulletin 1535, Farm horseshoeing. Illustrates practical methods of trimming and caring for the horses' feet. Price 35¢ each.

Breaking the farm colt. Series 195. 24 frames. Supplements Farmers' Bulletin 1368, Breaking and Training the Colts. Illustrates acceptable methods for the breaking of colts for ordinary purposes. Price 35¢ each.

Care of the laying flock. Series 239. 26 frames. Illustrates the essentials of housing, feeding, and care of a small laying flock. Price 35¢ each.

Breeds of horses. Series 43. 52 frames. Supplements Farmers' Bulletins 619, Breeds of Draft Horses, and 952, Breeds of Light Horses. Illustrates the principal breeds of horses. Price 44¢ each.

Farm Crops

Important cultivated grasses. Series 149. 30 frames. Supplements Farmers' Bulletin 1254, Important Cultivated Grasses. Price, 35¢ each.

Increase wheat profits by preventing smut. Series 265. 46 frames. Illustrates symptoms of stinking smut of wheat, emphasizes the losses in yield and market value, gives results of a survey in the spring wheat States. Price, 35¢ each.

Forestry

Chestnut blight. Series 199. 42 frames. Supplements Farmers' Bulletin 1641. Illustrates the importance of prompt utilization of chestnut suitable for poles and lumber. Price, 35¢ each.

Insects

Transferring bees to modern hives. Series 167. 49 frames. Supplements Farmers' Bulletin 961. Illustrates practical methods of transferring bees from box hives and log "gums" into movable-frame hives. Price, 44¢ each.

Handling bees for successful beekeeping. Series 172. 38 frames. Supplements Farmers' Bulletin 447, Bees. Illustrates various important steps necessary in handling bees successfully. Price, 35¢ each.

Marketing

Standardization of baskets for fruits and vegetables. Series 143. 30 frames. Supplements Farmers' Bulletin 1434, Standard Baskets for Fruits and Vegetables. Illustrates the importance of standard containers. Price, 35¢ each.

The marketing of eggs in the United States. Series 271. 42 frames. Supplements Farmers' Bulletin 1378, Marketing Eggs, and Circular 73, The Cold Storage of Eggs and Poultry. Illustrates the various steps of the marketing of eggs in the United States. 35¢ each.

EXTENSION RESULTS ARE IMPORTANT

VISUAL MATERIAL strengthens and vitalizes the extension message. Extension workers recognize that next to actual experience, such as one acquires in the demonstration, there is no more effective, convincing, and economical teaching aid than visual material. It brings results in the wider adoption of improved practices.

POSTERS, charts, photographs, cartoons, illustrated circular letters, diagrams, graphs, film strips, lantern slides, and layouts for window displays are a few of the various types of visual material coming into greater use.

THE Office of Cooperative Extension Work through its division of visual instruction and editorial work is at the disposal of State extension divisions who wish help in the preparation of illustrative material. Requests should be forwarded through the State director of extension to the

OFFICE OF COOPERATIVE EXTENSION WORK
EXTENSION SERVICE
UNITED STATES DEPARTMENT OF AGRICULTURE
WASHINGTON, D. C.

WE are agreed that the use of leisure is to restore and re-create the general health and well-being of the body which may have been lessened or destroyed. It is equally true that the health and well-being of the mind needs restoration and re-creation. If the mind and soul is in good health, one can face most of the realities of life and enjoy doing his best with them.

EDWARD L. THORNDIKE

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